



Future energy system pathways of East, Central and West China in a global context

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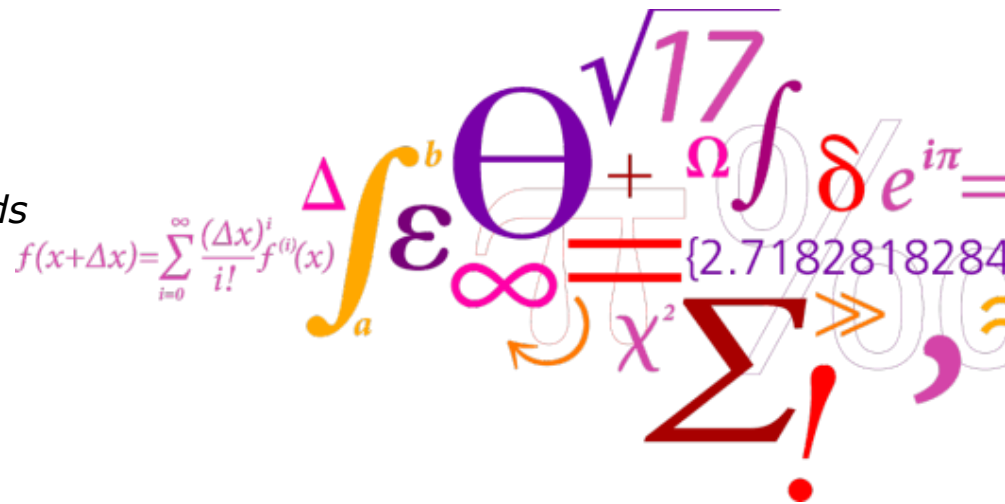
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IEA ETSAP TIAM Workshop

Future energy system pathways of East, Central and West China in a global context

*TIAM Meeting in Amsterdam at the
Energy Research Centre of the Netherlands
October 15, 2013*

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PART I

Bottom up modeling of East, Central and West China's energy system in the global ETSAP TIAM tool

How to deal with energy statistics full of Chinese characteristics in an international context?

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【全球视野下的中国能源统计：构建中国东部、中部及西部区域能源平衡表的方法论】<http://t.cn/zRUGrPh> 微评：这是迄今我看到的将中国能源统计问题描述的最清楚的报告之一，可惜作者不是来自中国。如果有关各方对中国能源统计的各种怪象持续睁只眼闭只眼，将。。。。。。🙄

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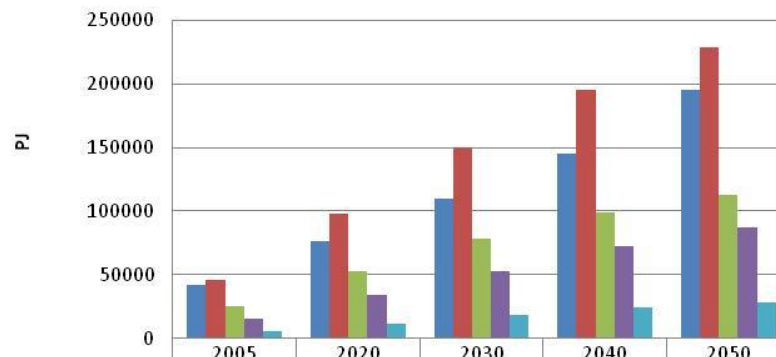
Summary of China specific improvements in ETSAP TIAM

- Correction of TIAM 2005 base year energy balance calibration based on updated IEA statistics for China
- Development of a new methodology to integrated selected indicators from Chinese national statistics in TIAM to distinguish energy systems for East, Central and West China
 - working paper published on Sept 30
- Programming of East, Central and West China Regions in the global TIAM tool
- Implementation of updated economic and population related drivers for East, Central and West China until 2050 in collaboration with NIES (new reference scenario for a regional specific China in discussion)



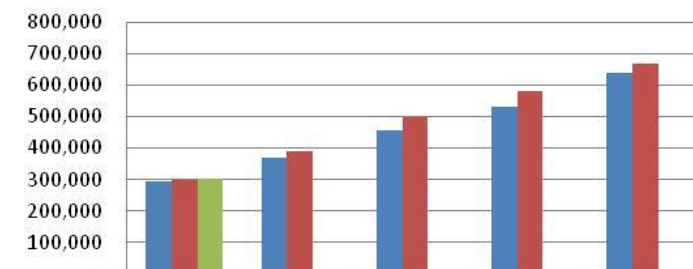
Future pathways for East, Central and West China: Reference scenario until 2050

China's energy sector end use until 2050 - improved details for East, Central and West China



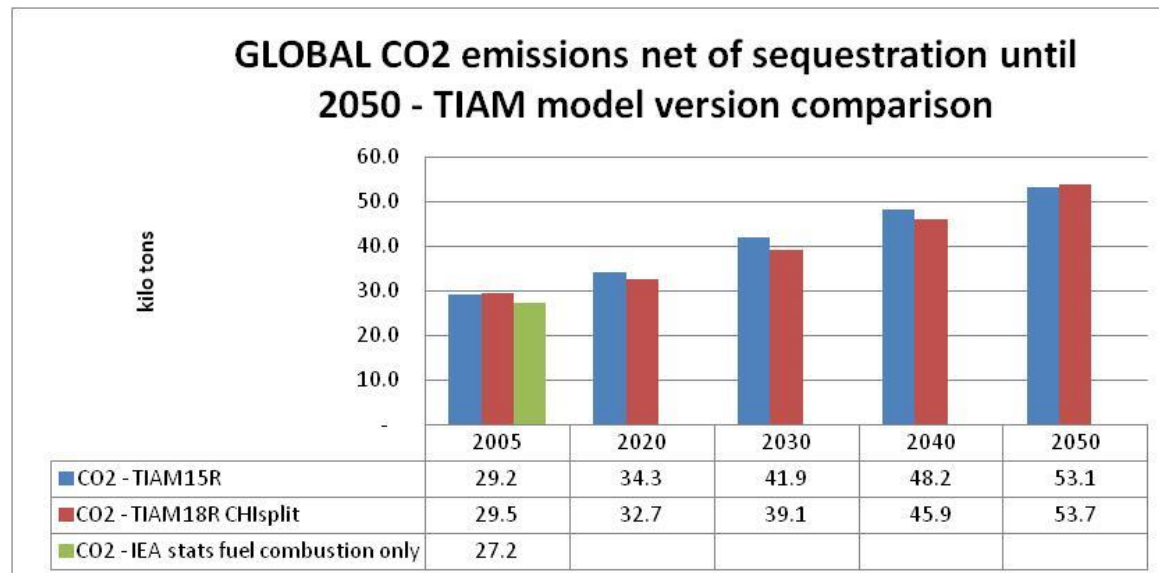
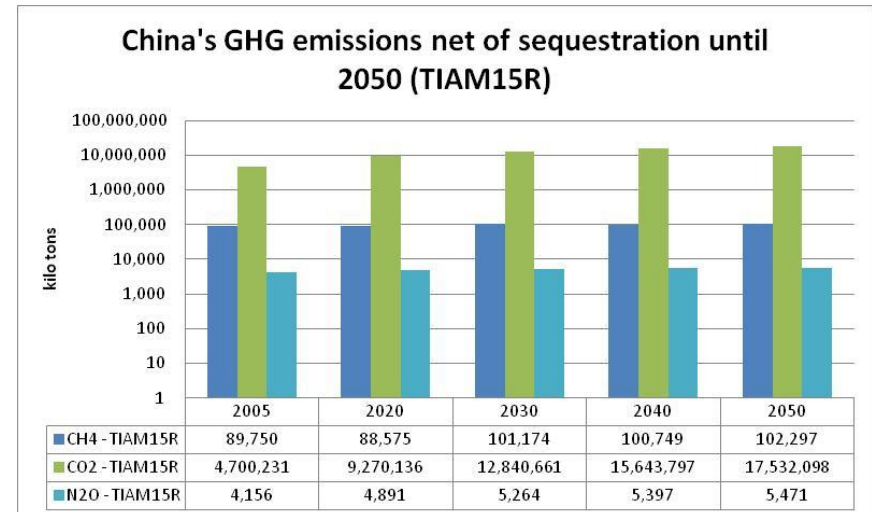
| | | | | | |
|----------------------------------|-------|-------|--------|--------|--------|
| TIAM15R - China | 41734 | 76555 | 109372 | 145451 | 195135 |
| TIAM18R CHIsplit - China | 45908 | 97910 | 149621 | 195487 | 228232 |
| TIAM18R CHIsplit - East China | 25313 | 52457 | 78789 | 98502 | 112787 |
| TIAM18R CHIsplit - Central China | 15393 | 33834 | 52776 | 72719 | 86776 |
| TIAM18R CHIsplit - West China | 5202 | 11619 | 18056 | 24266 | 28669 |

Global energy sector end use until 2050 - TIAM model version comparison



| | | | | | |
|----------------------------------|---------|---------|---------|---------|---------|
| TIAM15R | 294,383 | 370,464 | 455,145 | 532,314 | 639,064 |
| TIAM18R CHIsplit | 299,336 | 390,182 | 495,841 | 581,751 | 668,730 |
| IEA stats (excl. non energy use) | 302,593 | | | | |

Future pathways for East, Central and West China: Reference scenario until 2050



PART II

Future TIAM improvements planned by DTU as part of IEA ETSAP TIAM collaboration

Planned DTU TIAM improvements and collaboration

- Improved TIAM features with regards to discount rates and lead times for future energy technology assessments, in collaboration with EFDA TIMES
- Participation of DTU researchers at the next ETSAP meeting in South Korea in November
- Improved regional modeling of China in a global context
 - Continuous debugging, cross checking with IEA statistics,...
 - Developing a methodology for soft-linking the global TIAM bottom up model with a global top down CGE model, including regional energy systems of East, Central and West China in a global context
 - Defining a range of policy scenarios for East, Central and West China including amongst others:
 - China's planned economic restructuring and impacts on its energy system transition
 - China's central and regional government targets for renewable energy and energy efficiency
 - Climate impacts and GHG reduction scenarios, e.g for transport sector and residential sector

Further information on China energy stuff

A brand new China energy blog is available on my website:

<http://www.peggymischke.com/china-blog.html>

- Discussion of China's new energy and clean air policies during my next China business trip
- Abstracts and links to working papers and peer-reviewed articles on China's energy system

Your feedback, comments and questions are always welcome, just drop me a line:

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